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ABSTRACT

This study examined how Chinese and American Indian mothers support their young children's early literacy development in everyday interactions. Twenty mother-child dyads in each cultural community participated in the study. Analysis of videotaped interactions indicated that the mothers in the two communities differed greatly in the ways they supported their children in early literacy development. The Chinese mothers tended to privilege print-based literacy interactions more than the American Indian mothers. The American Indian mothers tended to privilege literacy interactions based on oral narratives of life and personal experiences. Moreover, the mothers in the two communities emphasized different aspects when supporting their children's early literacy development. The Chinese mothers tended to support their children in explicit, event-specific, and elaborative ways. In contrast, the American Indian mothers tended to support their children in implicit and contextual ways. (Contains 30 references.) (Author/EV)

Running Head: Children's Early Literacy EnvironmentChildren's Early Literacy Environment in Chinese and American Indian Families¹

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Abstract

This study examines how Chinese and American Indian mothers support their young children's early literacy development in everyday interactions. Twenty mother-child dyads in each cultural community participated in the study. The results of the study indicated that the mothers in the two communities differed greatly in the ways they supported their children in early literacy development. The Chinese mothers tended to privilege print-based literacy interactions than did the American Indian mothers. The American Indian mothers tended to privilege the literacy interactions that were based on oral narratives of life and personal experiences. Moreover, the mothers in the two communities emphasized different aspects when supporting their children's early literacy development. The Chinese mothers tended to support their children in explicit, event-specific and elaborative ways. In contrast, the American Indian mothers tended to support their children in implicit and contextual ways.

Key Words: Early literacy, Cultural variation, maternal support, and mother-child interaction

Since Marie Clay introduced the term *emergent literacy* to characterize the process how children become literate, there has been a new understanding of literacy development. We no longer regard literacy development in terms of a child's ability to read and write. Instead, we consider it as a gradual and emerging process of constructing meaning in the everyday context of home, community, and school (Clay, 2000; Halliday, 1975; Perez, 1998). It is apparent that adult support is essential in children's journey to become literate (e.g., Daiute, 1993; Lee, 1993; Strickland & Taylor, 1989; Morrow, 2001; Taylor, 1983; Taylor & Dorsey-Gaines, 1988; Teale & Sulzby, 1987). Moreover, it is clear that adults who hold different cultural and child-rearing beliefs provide different ways of support in children's endeavor toward literacy (e.g., Chang, 1998; Dien, 1998; Heath, 1983; McCarty & Watahomigie, 1998; Perez, 1998; Sperry & Sperry, 1995; Smith, 1998; Torres-Guzman, 1998). For example, white middle-class American parents emphasize print-related literacy activities (e.g., Morrow, 1995 & 1997; Neuman & Roskos, 1997), whereas parents in other cultural communities emphasize cultivating rich contexts for literacy development such as storytelling rather than print-based activities (Morrow, 1995; Wang, Bernas, & Eberhard, 2000). However, until recently, print-based activities were treated as the only form of literacy. Other forms of adult-child interactions such as oral narratives based on personal experiences were not considered literacy-related activities (Wang, Bernas, & Eberhard, 2000). There is evidence that oral language is the primary vehicle for developing literacy (Lee, 1993). The oral discourse occurring in everyday context such as talking about past events is central to children's ability to process written language (e.g., Snow, 1993). Children's spontaneous oral language during social interaction can facilitate literacy development (e.g., Daiutes,

1993). Even though oral forms of communication between adults and children are now considered to be the basis for becoming literate, few studies have focused on documenting the different forms of oral literacy in everyday interactions between children and adults in different cultural communities. Moreover, no studies have defined what can be counted as literacy activities in the cultural contexts despite some suggestions (such as Perez, 1998). The purpose of this paper, therefore, is to document the actual examples of literacy interactions through examining the everyday interactions between adults and children in two cultural communities. We chose Chinese and American Indian communities as our focus cultures because literature has suggested that Chinese and American Indian cultures have striking differences in their literacy tradition, child-rearing beliefs, and attitudes toward education. Chinese culture has a long history of (printed) literacy. Chinese parents tend to place children's educational achievement as priority (e.g., Ho, 1994; Stevenson & Lee, 1996; Tseng & Wu, 1985). In comparison, American Indian culture has a long history of oral tradition (literacy). Life-related learning has been the educational goal of young children (e.g., Tharp, 1994). Given the differences, we are interested in finding answers for these questions: 1) What are the characteristics of literacy activities initiated by adults in Chinese and American Indian cultural communities? 2) How do adults in the two cultural communities support their young children's early literacy development?

Methods

Participants

Chinese Sample. The Chinese community where we conducted our study is located in the industrial part of Nanjing in the People's Republic of China. The study

was conducted in the summer of 1999. All the residents in this community were workers of a large vehicle manufactory factory. Twenty mothers and twenty children participated in the study. The average age of the children who participated in the study was four years and one month (S.D. = 3 months). The sample was comprised of an equal amount of boys and girls. All the children were the only children in the families. At the time of the study, 25% of the children spent 4 to 6 hours per day at the factory daycare center, 55% spent 3 to 7 hours with their grandparents, and 20% spent time with their mothers most of the day. The average age of the mothers was thirty years and two months (S.D. = 8 months). The average length of their formal education was seven years (S.D. = 0.46). 65% of the mothers were workers in the factory and 35% were unemployed. Five local contact persons who were the friends or relatives of these families recruited the participants. The first author and one research assistant accompanied by the local contact persons initially visited the families. Parents were informed about the purpose and procedures of the study during the initial visit. A consent letters were signed and the mothers completed a biographic information sheet. Each family was visited two more times before the data collection began so that the family would feel comfortable with the presence of the researchers.

American Indian Sample. The two American Indian tribal villages where we conducted our study are located in the Standing Rock reservation in South Dakota in the United States. The observations took place in the spring of 1995 and 1996. All the children we observed lived in extended family settings.² 45% of the families were receiving government benefits. Twenty mothers and their children participated in the study. The average age of the children was four years and one month (S.D. = 2 months).

The sample was comprised of an equal amount of boys and girls. All the children in the sample were first-born. 57% of them had one younger sibling and 43% had two younger siblings. None of the children went to schools at the time of the study. 75% of them spent 2-4 hours with their grandmothers³ and other relatives and 25% spent most of the day with their mothers. The average age of the mothers was twenty-three years and five months (S.D. = 2 years). The average length of the mothers' formal education was seven years (S.D. = 0.72). 90% of the mothers were unemployed and 10% of the mothers were working in local restaurants and bars. The mothers were contacted through three American Indian undergraduate students who were enrolled in a child development course in a university 150 miles away from the reservation. These students were originally from the tribal villages. The researchers, research assistants, and the American Indian contact students initially visited the families. The mothers were informed about the purpose and procedures of the study by the researchers. The mothers gave oral consent.⁴ The American Indian contact students completed a biographic information sheet about the participants. Each family was visited two more times before the data collection began so that the family had opportunities to get used to the presence of the "strangers."

Procedures

Data collection.—The mothers and children in the Chinese and American Indian families were observed and videotaped at home during their daily routines. The participants were observed for eight sessions in a period of four weeks and each session lasted about two hours. 345 hours of video-recorded data were collected in the Chinese families (17.25 hours for each mother-child pair in average, ranging from 15-19.20

hours). 322 hours of video-recorded data were collected in the American Indian families (16.1 hours for each mother-child pair in average, ranging from 12.3-17 hours).

Data transcription.— All the video-recorded mother-child interactions in the everyday context were transcribed verbatim to provide an overall context for the study. All the transcription was transcribed and checked by native speakers of the two communities. There was an overall 95% reliability across the transcribers.

Data coding.— Since the purpose of our study is about how mothers in the two cultural communities support their children's early literacy development in the everyday context, several measures were used to reflect this aspect.

1) We examined the overall maternal initiations of literacy-related activities in relation to other types of activities in everyday interactions. The purpose of this measure was to understand how frequently the mothers in the two communities were involving their children in literacy-related activities. The data were identified and coded in two categories: The initiation of literacy-related episodes and the initiation of non-literacy-related episodes (or other episodes). An initiation of literacy-related episode is defined as an interaction between a mother and her child in which the mother initiated an interaction that was related to the process of helping the child become literate. Based on the theoretical framework of emergent literacy (e.g., Clay, 1991; Daiute, 1993, Ready & Daiute, 1993; Daiute & Griffin, 1993; Snow, 1993), both oral and print-based initiations by the mothers in everyday interactions were considered. The following interaction between an American Indian mother and her daughter shows an example of the literacy-related episode.

(The mother and the child were chatting in the kitchen)

...

Mother: Okay. What is --your name?

Child: *Tishipapa*

Mother: *Tishipapa*. What does that mean?

Child: Mmm. Eye.

Mother: What?

Child: Eye.

Mother: And you're named kind of after your Grandma.

Whose name was--? Which means Green eyes. Right?

Child: Mmm, huh.

Mother: Okay. And your Grandma Babe,

How did you hear about her?

Now is Grandma Babe, whose Grandma is? She, my Grandma.

Child: Mmm, huh.

Mother: Your Grandma Shelly's Mom.

And she was really a strong woman, wasn't she?

A long time ago, back in the 1930's, Grandma was,

Um, young and she was having babies.

She lived in a ranch.

And they were just getting started on their ranch.

And they were way, way, way out in the country.

Um, and you know what it is like when you're out in the country.

Well, they didn't have any, um, telephone or no cars.

And, let's see.

You know who Aunt Joan is.

Aunt Joan was a little girl.

And you know who Uncle Bud is?

He was just a little boy.

And you know who Uncle John is?

He was just a little boy.

And Uncle Wayne was in Grandma's?

Child: Belly.

Mother: Yeah. Well one day Grandpa Frank.

You know who he is.

Child: (Nods).

Mother: Okay. Well, he went off to work that day

And back then, it was very important for all

the grandmas to get all of the housework and stuff

done, so that supper was ready by the time Grandpa got home.

And, uh, Grandma Babe had many babies.

Three babies already and she knew she was going to have this baby
that day after Grandpa left.

And she was stuck down at the ranch by herself
with these three little kids, gonna have this baby.

Child: (Giggles).

Mother: So, she told Aunt Joan to take care of the other kids, and

Child: Was she little then?

Mother: Your Aunt Joan was little then.
So, she told 'em to take care of the other kids and she went
into the bedroom for a while.
Well, by the time Grandpa Frank came home that night –
Grandma Babe –
He didn't even notice that Grandma Babe wasn't pregnant (laughs) anymore.
And, he had, she had supper and then realized there was a new baby there.
So, Grandma Babe had that baby all by herself.
That's how strong she was.
Down, down at the old place is what they call it.
Did you ever see the picture of the white house?
That's how your Uncle Wayne was born.
That's pretty tough, huh?
...

We considered this interaction to be a literacy-related episode for several reasons: First, the interaction initiated by the mother is a family story that included a main character (Grandma Babe), a place and setting (white house in the old place, ranch), an event (Grandma gave birth to a baby), and a theme or a moral of the story (a strong woman). Second, in narrating the family story, the mother modeled how to begin a story, how to unfold the story, and how to end the story. Third, even though this story is not print-based, we argue that it serves the same function as the print-based story read by adults to young children. This process has only recently been associated with the process of becoming literate (e.g., Daiute, 1993). According to Snow (1993), parents socialize children into ways of talking, this is the basis of text discourse in the future. We identified and coded the other mothers' initiations that were not relevant to the process of becoming literate as the initiation of non-literacy related episodes (or other episodes).

2) After the literacy-related episodes were identified and transcribed, we then examined the types literacy-related episodes initiated by the mothers in the two communities. The purpose of this measure was to see how mothers in these two communities oriented their children in literacy-related aspect.

3) We examined the length of time that the mothers engaged their children in each literacy episode. The purpose of this measure was to see how much time the mothers were willing to spend with their children on literacy-related aspects.

4) We examined how the mothers supported their children in literacy development. Three types of maternal support were identified and examined. The first type of support was identified as explicit and implicit support. An explicit literacy-related support is defined as a mother's initiation that was directly print-based. For example, when opening a letter, a Chinese mother asked her child whether she knew the character *receiving* (shou) on the letter cover. After getting no answer from the child, the mother told the child that the character meant "Shou" (receiving). Then she traced her right index finger in the air as if she was writing it. In this episode, the mother explicitly supported the child in his literacy development.

An implicit literacy support is defined as a mother-child interaction that is not print-based, but it implicitly contributes to children's literacy development or it bears relationship to the process of becoming literate. The examples given on page 7 indicates that the mother is socializing her child in oral discourse. Even though this interaction seen on page 7 is not print-based, it has the same function as a mother read a printed story to a young child.

The second type of support we identified was contextual and event-specific support. Contextual support means that a mother not only talked about a particular literacy-related event, but also reinforced the context that related to the event. For example, when an American Indian child described to her mother about a day at her aunt's house, she told her mother that her aunt served her corn bread for lunch. The

mother asked the child if she knew what the bread was made of, how the corn bread was made, who made the bread, if anyone else was at the lunch beside herself and her aunt, if she knew how corns grew, if she knew that her own grandmother used to spent "days and days" peeling corns, etc. These questions helped the child understand the whole context of corn bread rather than just the words "*corn bread*."

An event-specific support means that the questions asked by the mothers were specifically related to the literacy-related event, not to the context of the event. For example, when reading a book with his mother, a Chinese boy saw a girl who was holding *bing tang hulu* (a kind of preserved fruit coated with sugar or honey). The boy told his mother that long time ago (last winter), he had *bing tang hulu* in the street with his Dad. The mother asked the boy whether the *bing tang hulu* was coated with sugar or honey and whether he could point out the *bing tang hulu* characters in the book for her. All the questions asked by the mother specifically referred to "*bing tang hulu*."

The third type of support we identified was elaboration. Elaboration means that a mother expanded the child's knowledge on literacy-related activities. For example, when a Chinese child pointed at a picture in a book and told the mother: "It is a rabbit." Her mother elaborated on the child's picture recognition by asking her: "Can you show me the word *rabbit* in the book. How many strokes does the word rabbit have? etc." In this interaction, the mother expanded the child's original comment and oriented her to the prints.

Reliability.—The reliability was done by randomly selecting 35% of the coded data. The overall reliability for the coding was 89.2% (with 93% for the overall literacy initiation, 88% for the types of interaction, 91% for maternal time spent on interaction,

88% explicit/implicit support, 87% contextual/event-specific support, and 88% elaborative support). Different coders checked all the coded data.

Results

Proportion of Literacy-Related Interactions Initiated by Mothers

Table 1 shows that nearly half (43%) of the interactions initiated by the Chinese mothers with their children in an everyday context were literacy-related. Of all the interactions that were initiated by the American Indian mothers, only a small-portion of it was literacy-related (10%). To examine if this difference was significant, an arcsin transformation ($y' = 2 \arcsin (y^{1/2})$) of the proportion data was first conducted (Winer, 1971). A t-test conducted on the transformed data indicated that the Chinese mothers were significantly more likely than the Native American Indian mothers to privilege literacy-related activities with their children, $t(38) = 14.66, p < .001$.

(Insert Table 1 here)

Types of Literacy-Related Interactions

The Chinese and American Indian mothers not only differed in initiating literacy-related interactions, but they also differed in their preference of different types of literacy activities in their initiations. Table 2 shows that the Chinese mothers (83% of all the literacy-related initiations) were more likely than the American Indian mothers (22% of literacy-related initiations) to initiate print-based literacy interactions, $t(38) = 40.32, p < .001$. The American Indian mothers preferred interactions that were related to oral narration of children's personal, family stories, and oral folk tales.

(Insert Table 2 here)

Mean Time Mothers Spent on Literacy Interactions

Table 3 indicated that the Chinese mothers spent a significantly longer time on literacy related interactions after they initiated them than did the Native American Indian mothers, $t(38) = 9.02, p < .001$.

(Insert Table 3 here)

Differences in Support Given by the Mothers

Explicit and implicit support.—The Chinese mothers and American Indian mothers varied greatly in their support of their children's literacy development. Table 4 has shown that the Chinese mothers were significantly more likely than the American Indian mothers to explicitly direct their children's attention to the print-based literacy activities, $t(38) = 48.16, p < .001$.

(Insert Table 4 here)

Contextual and event-specific support.--Table 5 has indicated that the Chinese mothers were significantly more likely than the American Indian mothers to focus on the specific aspects of literacy events (such as in the *bing tang hulu* example showed earlier), $t(38) = 20.92, p < .001$. The American Indian mothers tended to spend more time in providing the context that was relevant to the literacy event such as in the *corn bread* example previously described.

(Insert Table 5 here)

Elaborative support.--Table 6 has suggested that the Chinese mothers were more likely than the American Indian mothers to expand on their young children's answers in literacy-related aspects, $t(38) = 21.04, p < .001$. The American Indian mothers tended to

accept the children's "version" and they seldom added to what their young children had told them.

(Insert Table 6 here)

Discussion

When considering literacy development and how adults support their children, few researchers have genuinely paid attention to the meaning of being literate in different cultural contexts. In the case of the American Indian children, few studies have positively portrayed their early literacy experience. What have been reported in the literature, however, are often the problems and deficits. As Joe (1994) pointed out, "... much what we know about Native-American children or youth is related to 'problem investigation' and not to normal development or the positive aspects of their development or behavior..." Overall, the literacy activities demonstrated in our study by the American Indian mothers have not been considered as the positive literacy socialization process at all. We would like to argue that if the oral narratives described in the literature (e.g., Snow, 1993) are considered to be the process of becoming literate, then similarly, the kinds of oral interactions between the American Indian mothers and their children documented in our study should also be considered as the culturally-specific and meaningful process of becoming literate.

Every culture has its own beliefs and goals about child socialization (LeVine, 1977). In everyday interactions with the young, adults realize their beliefs and goals through deliberate efforts (Wang, 1998). Literacy is used as a way to achieve their goals in a variety of contexts (Dien, 1998). Since literacy is valued as a measure of success in Chinese society, the Chinese mothers in our study were very persistent with their effort to

socialize their children to become literate. This endeavor has been demonstrated in our findings. They frequently engaged their children in literacy-related interactions (Table 1), they constantly orientated their children to prints (Table 2), they spent longer time interacting with children in literacy-related activities (Table 3), and they supported their young children in explicit, event-specific, and elaborative ways (Tables 4, 5, & 6). All these maternal behaviors are consistent with Chinese parents' socialization styles reported in the literature (e.g., Steward, M. S. & Steward, D. S., 1973; Wang, Mylander, & Goldin-Meadow, 1995; Wang, 1998).

The American Indian mothers, however, regard child socialization as a holistic process. The daily interactions with young children are not separated from life experience including literacy development. As our study suggested, the American Indian mothers did not treat literacy development as more important than other types of activities (Table 1). They encouraged narratives that were life-related rather than print-related (Table 2). They did not "impose" on their children like the Chinese mothers. Instead, they let the children play the major role in their own development (Tables 3 and 6). They focused on the implicitly and the contextual aspects of learning (Tables 4 and 5). These behaviors are consistent with the literature on American Indian adult socialization styles (e.g., Joe, 1994; Phillip, 1983; Tharp, 1994).

Our study has demonstrated the different literacy socialization practices of Chinese and American Indian cultural communities. This finding echoes the comments by McCarty and Watahomigie (1998): "There is no single, uniform literacy; no one, straight-line path to literacy; nor is the literacy club open only to a privileged few. Instead, there are multiple literacies, many paths, and a variety of ways for children to

acquire and use their literacy potentials..." It is exactly this "many paths toward literacy" that our education system needs to respond to. We hope that this study will encourage educators to find ways to bridge the literacy continuum—the home and school literacies.

Notes:

1. The families in our study preferred to be called American Indians.
2. In the American Indian extended families that we observed, children spent parts of the day with relatives such as aunts, uncles, and grandparents who live in separate households.
3. In the American Indian families we observed, a child can have several grandmothers. These grandmothers were not necessarily genetically related.
4. The American Indian mothers felt comfortable to give oral consent rather than written consent.
5. Other statistical analyses in this paper that involved proportion data were conducted on arcsin transformation data (Winer, 1971).
6. The folk tales cannot be found in print. They are passed through mouth generations after generations.

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TABLE 1
Proportion of Literacy Interactions Initiated by Chinese and American Indian Mothers

Community	Literacy	Other
Chinese	43%	57%
American Indian	10%	90%

TABLE 2
Proportions of Types of Literacy Interactions Initiated by Chinese and American Indian Mothers

Type	Chinese	American Indian
<u>Print Based</u>		
Word/Character/logo recognition and labeling	21%	4 %
Picture and photo Identification	16%	7%
Children's rhymes	10%	2%
Children's songs	9%	6%
Reading	8%	1%
Classical poem recitation	8%	0%
Character/word writing	7%	0%
Drawing	4%	1%
<u>Non-Print Based</u>		
Children's personal stories Telling	8%	24%
Folk tales	4%	19%
Anecdotal stories about family members	2%	35%
<u>Other*</u>	2%	1%

*The types of literacy-related initiations that occurred only once was grouped under the category "other."

TABLE 3
Mean Time Chinese and American Indian Mothers Spent on Interactions

Community	Duration (Seconds)
Chinese	73
Native American	56

TABLE 4
Proportion of Explicit and Implicit Support Given by Chinese and American Indian Mothers

Community	Explicit	Implicit
Chinese	82%	18%
Native American	14%	86%

TABLE 5
Proportion of Contextual and Specific Support Given by Chinese and American Indian Mothers

Community	Contextual	Specific
Chinese	34%	66%
Native American	71%	29%

TABLE 6
Proportion of Elaborative Support Given by Chinese and American Indian Mothers

Community	Elaborative	Non-Elaborative
Chinese	64%	36%
Native American	17%	83%